

# Paralytic Shellfish Poisoning (“red tide”)



## What is paralytic shellfish poisoning?

Paralytic shellfish poisoning (PSP) is a serious illness caused by eating shellfish contaminated with algae that contains a toxin harmful to humans. When this algae increases to high numbers in marine waters, the condition is sometimes (and somewhat erroneously) referred to as a "red tide".

## What causes unsafe levels of PSP?

The amount of toxin increases when water conditions are favorable. However, the exact combination of conditions that cause “blooms” of poison-producing plankton is not known. We do not yet understand the interaction of the water conditions. Unlike bacterial contaminants like vibrio, warm water does not necessarily increase the level.

## Which seafood can transmit PSP to humans?

All molluscan shellfish including clams, mussels, oysters, geoduck and scallops can have paralytic shellfish poison. Moon snails and other gastropods also can become toxic. Other marine species, such as sea cucumbers, might also be affected. Crabmeat is not known to contain the PSP toxin, but the guts can contain unsafe levels. To be safe, clean crab thoroughly and discard the guts.

## Who is most at risk?

Anyone who eats PSP contaminated shellfish is at risk for illness or death.

## What are the symptoms of PSP?

Early symptoms include tingling of the lips and tongue, which may begin within minutes of eating poisonous shellfish or may take an hour or two to develop. Depending upon the amount of toxin a person has ingested, symptoms may progress to tingling of fingers and toes and then loss of control of arms and legs, followed by difficulty in breathing. Some people have experienced a sense of floating or nausea. If a person consumes enough poison, muscles of the chest and abdomen become paralyzed. Death can result in as little as two hours, as muscles used for breathing become paralyzed.

## If the water looks dirty or red, does that mean that shellfish are contaminated?

Not necessarily. Paralytic shellfish poison is rarely associated with a red tinge to the water. Reddish coloration of the water is more commonly associated with other, non-toxic organisms.

## If the water is not red, does that mean that shellfish are not contaminated?

Not necessarily. PSP can be present in large amounts even if the water looks clear. Also, the toxin can remain in shellfish long after the algae bloom is over.

## Can I tell if it's safe to gather shellfish by how they look?

No, shellfish containing toxic levels of PSP don't look or taste any different from non-toxic shellfish.

**How can I protect my family from paralytic shellfish poisoning?**

DOH regularly checks shellfish for PSP toxin and closes areas that have unsafe levels. Before harvesting any kind of shellfish, check the marine [Biotoxin Bulletin](#) or call the *Marine Biotoxin Hotline* at 1-800-562-5632 to find out what recreational areas are closed due to PSP. Do not expect beaches to be marked with a sign.

**Does cooking the shellfish make it safe to eat?**

No. The poison is not destroyed by cooking or freezing.

**What should I do if I think that I, or someone in my family, has paralytic shellfish poisoning?**

If symptoms are mild, call your health care provider and your local public health agency. If symptoms are severe, call 911 or have someone take you to the emergency room.

**What is the treatment?**

There is no medication available. The only treatment for severe cases is the use of a mechanical respirator and oxygen.

**Are there any other illnesses associated with shellfish?**

Yes, a person may have an allergic reaction to shellfish or become ill due to bacteria or viruses in shellfish.

**How do I know that restaurant shellfish do not have high levels of PSP?**

Restaurants and stores must purchase shellfish from certified growers. Certified growers are required to have their products regularly tested for PSP.

**KNOW BEFORE YOU DIG!**

Check the DOH website at [www.doh.wa.gov/shellfishsafety.htm](http://www.doh.wa.gov/shellfishsafety.htm)

or

Call the Biotoxin Hotline at 1-800-562-5632

or

Call your local health department

Want more information?

Call the Office of Shellfish and Water Protection at (360) 236-3330.

Web:

[www.doh.wa.gov/CommunityandEnvironment/Shellfish/BiotoxinsIllnessPrevention/Biotoxins.aspx](http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/BiotoxinsIllnessPrevention/Biotoxins.aspx)

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